In the Claims:

1.(original) A static mixer for a high-viscosity flowing fluid with mixing elements which are made as monoliths, with sleeve elements in the form of tube pieces by means of which the mixing elements are positioned, and with a housing into which the sleeve elements are inserted together with the mixing elements, with the mixing elements each including a lattice structure, webs of this lattice structure crossing at crossing positions which are arranged at bar-like region transversely to a main flow direction of the fluid, and the main flow direction being given by a longitudinal axis of the housing,

characterised in that the sleeve elements are in contact at their ends via abutment surfaces; in that cut-outs exist at these ends into which two annular segments of the mixing elements are inserted in a shape-matched manner to the cut-outs; in that two end surfaces of each segment are each arranged such that centers of the end surfaces can each be connected by lines which are aligned at least approximately the same as the bar-like regions of the crossing positions; and in that these bar-like regions have cross-sectional surfaces which are not larger than radial cross-sectional surfaces of the ribs.

2. (original) A mixer in accordance with claim 1, characterised in that the webs each have a rectangular cross-section; in that transitions are formed at the crossing positions of the webs and at the connection positions of the webs to the ribs such that surface elements standing transversely to one another are connected by rounded surface sections in surrounding regions of the transitions; and in that the

radii of curvature of these surface sections are larger than 10% of a diagonal diameter of the webs.

3. (original) A mixer in accordance with claim 1, characterised in that radial cross-sectional surfaces of the ribs are wedge-shaped, with an apex of the wedge shape being directed to the outside.

4. (original) A mixer in accordance with claim 1 characterised in that the cut-outs for the segments are restricted to regions which do not extend up to an inner wall of the housing.

5. (original) A mixing element for a mixer in accordance with claim 1.

6. (original) A mixing element in accordance with claim 5, characterised in that the segments of the mixing element are reworked by grinding at their surfaces for the purpose of producing a precise shape match in the cut-outs of the sleeve elements.

7.(currently amended) A one-piece body forming a mixing element for a static mixer, said body having

a first plurality of ribs disposed in spaced apart parallel layers angularly of a longitudinal axis;

a second plurality of ribs disposed in spaced apart parallel layers and in crossing relation to said first plurality of ribs, said ribs of said first plurality of ribs and said ribs of said second plurality of ribs forming bar-like regions transverse to said longitudinal axis; and

a pair of annular segments disposed on and projecting from opposite sides of said body, said segments being peripherally spaced apart to define gaps therebetween.

8. (currently amended) A one-piece body as set forth in claim 7 wherein said body is a cast body made of ~~Inconel~~ INCONEL IN 718.

9. (original) A one-piece body as set forth in claim 7 wherein each rib has a rectangular cross-section and wherein said body has rounded transitions connecting adjacent ribs.

10. (original) A one-piece body as set forth in claim 7 wherein each annular segment has a wedge-shaped cross-section.

11. (currently amended) A static mixer comprising

a plurality of mixing elements, each element comprising a one-piece body having a first plurality of ribs disposed in spaced apart parallel layers angularly of a longitudinal axis; a second plurality of ribs disposed in spaced apart parallel layers and in crossing relation to said first plurality of ribs, said ribs of said first plurality of ribs and said ribs of said second plurality of ribs forming bar-like regions transverse to said longitudinal axis; and a pair of annular segments disposed on and projecting from opposite sides of said body; and

a plurality of sleeve elements disposed in alternating relation with said mixing elements along said longitudinal axis, each said sleeve element having a pair of oppositely disposed recesses in each side thereof receiving said annular segments of an adjacent mixing element, each said sleeve being in contact with an ~~adjecent~~ adjacent sleeve.

12. (original) A static mixer as set forth in claim 11 wherein each rib has a rectangular cross- section and wherein said mixing element has rounded transitions connecting adjacent ribs.

13. (original) A one-piece body as set forth in claim 11 wherein each annular segment has a wedge-shaped cross-section.